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Title:

Molecular characterization of *Sardina pilchardus* larvae diet in Málaga Bay (SW Mediterranean Sea)

Abstract (less than 200 words, a concise statement of objectives, results and implications):

The study of predation in the early life stages of fish by direct observation of their stomach content is very difficult, mostly because prey lose all identifiable characteristics.

We developed a multiplex-PCR based method, which detected within the gut of the larvae the presence/absence of the five main species of copepods that live in Malaga Bay: *Clausocalanus parapergens*, *Oncaea waldemari*, *Paracalanus indicus*, *Temora stylifera* and *Acartia clausi*.

A set of five species-specific primers were designed and combined in a single multiplex PCR system, which allowed a time and cost effective screening of the samples. The method detected as little as 0.09 ng/ μ L of copepod DNA without cross-reactions with *Sardina pilchardus* DNA.